

FILE

TID/TAB - 97/64
19 June 1964

MEMORANDUM FOR THE RECORD

SUBJECT: Attempts to Identify Chief Big Foot

1. The following data represents attempts to identify Chief Big Foot from a photograph taken of him in front of the U. S. Capitol. In the Capitol photograph, the Chief is positively identified; the problem, therefore, is to determine which of the other two Indians (Photos 54581 and 3223-a) is the Chief. The photograph where Big Foot is dead was not used (Photo 3200-b-a).

2. The technique used, in this attempt to identify the Chief, was to measure features and compare the ratios obtained. Poor resolution hampered precision of measurements; however, it can be concluded that Photo 54581 is more similar to 43563 than to 3223-a. No subjective opinions are included.

3. The following tabulation contains the raw data, solutions, and conclusion on each technique:

a. Ratios between *I. D. and distance between eye line to chin line.

	<u>I. D.</u>	<u>Eye Line to Chin Line</u>	<u>Ratio</u>
43563	14.5	26.5	1.83
3223-a	15.8	30.0	1.89
54581	12.0	22.0	1.83

Interpupillary distances and exact chin lines cannot be defined positively on Photos 43563 and 54581.

Conclusion: The above ratios nonetheless indicate that 43563 is more similar to 54581 than 3223-a.

*Interpupillary Distance

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b. The lower lip configuration of Photos 54581 and 43563 are similar.

Ratio of upper to lower lips of three photos are as follows:

<u>#1 Measurement</u>		<u>Upper</u>	<u>Lower</u>	<u>Ratio</u>	STAT
43563		15	25	1.67	
3223-a		20	28	1.40	
54581		13	22	1.69	
<u>#2 Measurement</u>					
43563		19	27	.41	
3223-a		24	20	.54	
54581		15	24	.38	

Lip ratios can be reliable if the subject is not pouting.

Conclusion: Assuming no pouting, 54581 is more similar to 43563 than 3223-a.

c. Ratio between top of eyebrow to center of eye distance and distance from center of eye to chin line.

	<u>Brow to Eye</u>	<u>Eye to Chin</u>	<u>Ratio</u>
43563	4.6	26.6	5.78
3223-a	4.7	30.5	6.49
54581	3.75	21.8	5.81

Conclusion: The above ratios indicate that 43563 is more similar to 54581 than 3223-a.

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d. Ratio between distance from top of eyebrow line to tip of nose line, and distance from tip of nose to top of head.

	<u>Eyebrow to Nose Tip</u>	<u>Nose Tip to Top</u>	<u>Ratio</u>
43563	15.0	31.5	2.10
3223-a	17.75	40.5	2.28
54581	13.25	27.25	2.06

Top of head and tip of nose are ill-defined.

Conclusion: Even though top of head and tip of nose have to be interpreted, the ratios between 43563 and 54581 show some agreement but perhaps not sufficient to classify as positive correlation.



Chief, Technical Analysis Branch

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STAT

PROBLEM: Can People be Identified from Measurement and Ratios of Their Facial Features?

GIVEN: Two Different Photos of and Two Different Photos of STAT

1. /Ratio between I. D. and distance from eyeline to chin. STAT

	<u>I. D.</u>	<u>Eyeline to Chin</u>	<u>Ratio</u>	
<input type="text"/> #1	9.8	21	2.14	STAT
<input type="text"/> #2	5.7	11.5	2.02	
<input type="text"/> #1	10.5	18.0	1.71	
<input type="text"/> #2	6.5	11.25	1.73	
#2 has his mouth open slightly.				
#1 is fatter than <input type="text"/> #2.				

STAT

2. Ratio between top of eyebrow to center of eye distance and eyeline to chin distance.

	<u>eyebrow to Eye</u>	<u>Eyeline to Chin</u>	<u>Ratio</u>	
<input type="text"/> #1	2.25	21	9.33	STAT
<input type="text"/> #2	1.15	11.5	10.00	
<input type="text"/> #1	3.50	18.0	5.14	
<input type="text"/> #2	2.00	11.25 ;	5.63	

3. Conclusion: Persons can be classified and/or identified by facial measurements and ratios.